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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/058,651 | 01/28/2002 | Steven M. Blumenau | 10830.0033.DVUS01 | 5520 |

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| EXAMINER | |
|---|---|
| SHIN, KYUNG H | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2132 | 4 |

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/058,651 | BLUMENAU ET AL. | |
| | Examiner | Art Unit | |
| | Kyung H Shin | 2132 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 January 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

*1.* Claims 1-9 are presented for examination

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claim 1- 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Best, (U.S. Patent No. 4,465,901) in view of Heffner et al., (U.S. Patent No. 6,319,740).

In regard to **claims 1 and 7**, Best discloses the art of cryptographic microprocessor authentication protocol, which resides in an electronic circuit chip (see Fig.1) comprising:

a) a memory for storing information defining an encryption procedure assigned to the electronic circuit chip (see Fig. 3, element 167)

b) at least one input to the electronic circuit chip for writing, to the memory, the information defining the encryption procedure assigned to the electronic circuit

chip, and for receiving data to be encrypted by the encryption procedure assigned to the electronic circuit chip (see col. 4, lines 42-56)

c) encryption circuitry for reading from the memory the information defining the encryption procedure assigned to the electronic circuit chip, and for encrypting the data from said at least one input to the electronic circuit chip according to the encryption procedure assigned to the electronic circuit chip, to produce encrypted data (see col. 7, line 60-col. 8, line 4);

d) at least one output from the electronic circuit chip for transmitting the encrypted data produced by the encryption circuitry (see col. 7, lines 45-47);

e) wherein the electronic circuit chip is constructed so that the information defining the encryption procedure assigned to the electronic circuit chip cannot be read from the memory from any output of the electronic circuit chip (see col. 13, lines 14-29)

f) wherein the electronic circuit chip is constructed so that it is virtually impossible to recover the information in the memory by probing, inspection, or disassembly (see col. 18, lines 26-37);

But Best does not specifically disclose a metal shielding layer over the memory so that the information stored in the memory cannot be read by visual inspection or probing. Best discloses a shielding layer of glass, however, Heffner in analogous art discloses a metal shielding layer over the memory as a coated integrated circuit so that the information stored in the memory cannot be read by visual inspection or probing. (see col. 6, lines 11-31).

Therefore, it would have been obvious to those of ordinary skill in the art at the time the invention was made to modify Best by including therein a metal shielding layer over the memory so that the information stored in the memory cannot be read by visual inspection or probing and is resistant to interference as taught in Heffner. One of ordinary skill in the art would have been motivated to so modify the procedure in Best in order to prevent a pirate from reading the program by a photographic enlargement of the chip or by probing an easily found internal bus.

In regard to **claims 2 and 8**, Best discloses the electronic circuit chip is a monolithic semiconductor integrated circuit chip (see col. 18, line 66- col. 19, line 12).
In regard to **claims 3 and 9**, Best discloses the electronic circuit chip, wherein the memory is an electrically erasable and programmable read-only memory (see col. 20, lines 46-61).

In regard to **claim 4**, Best discloses the electronic circuit chip, wherein said encryption circuitry includes a microprocessor for computing the encrypted data (see col. 18, line 66- col. 19, line 12).
In regard to **claim 5**, Best discloses the electronic circuit chip as claimed in claim 4, wherein the microprocessor is constructed to execute an encryption program stored in the memory, and the encryption program defines the encryption procedure assigned to the electronic circuit chip (see col. 19, lines 36-57).

In regard to **claim 6**, Best discloses the electronic circuit chip as claimed in claim 4, wherein said microprocessor is programmed to read an encryption key from the memory, and to compute the encrypted data using the encryption key, and the encryption key defines the encryption procedure assigned to the electronic circuit chip (see col. 5, line 63- col. 6, line 12).

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is 703-305 - 0711. The examiner can normally be reached on 6:30 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 703-305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-2394.

Kyung H. Shin
Kyung H Shin
Patent Examiner
Art Unit 2132

KHS
November 6, 2003

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100